

What is claimed is:

1. A fluid isolation valve comprising:

a valve body, said valve body having a first fluid flow port, a second fluid flow port and a fluid drain port, wherein said valve body defines a fluid flow channel, a drain flow channel and a valve portion, said valve portion being disposed to be communicated with said first fluid flow port, said second fluid flow port and said fluid drain port; and

5 a flow diversion device disposed within said valve portion, said flow diversion device being configurable between a first configuration and a second configuration, such that when said flow diversion device is in said first configuration said first fluid flow port is communicated with said second fluid flow port and when said flow diversion device is in said second configuration said first fluid flow port is communicated with said fluid drain port.

10 2. The fluid isolation valve according to claim 1, wherein said flow diversion device  
15 is a ball valve unit comprising:

a ball section, said ball section defining a stem chamber and a ball chamber, said stem chamber disposed adjacent to and extending outwardly from said ball chamber;

15 a stem disposed within and extending outwardly from said stem chamber and connected to said ball disposed within said ball chamber, an exposed portion of said stem extending beyond said stem chamber;

20 a handle connected to said exposed portion of said stem disposed within said stem chamber and connected to said ball, wherein actuation of said handle effects actuation of said ball for operating said ball valve unit;

25 a main section disposed separate from and adjacent to said ball section; and a drain port communicating with said main section.

3. The fluid isolation valve according to claim 2, wherein said drain port has drain port valve disposed within.

30 4. The fluid isolation valve according to claim 3, wherein said drain port valve is a ball valve unit.

5. The fluid isolation valve according to claim 3, wherein said drain port valve is a stem and seat valve.

6. The fluid isolation valve according to claim 2, wherein a flange formed as a  
5 continuous portion of at least one of said main section and said ball section, said ball section including said stem chamber and said ball chamber, wherein said flange, said main section and said ball section including said stem chamber and said ball chamber being formed as a single piece formed of a rigid material.

10 7. The fluid isolation valve according to claim 1, wherein said main section and said ball section are made of brass.

8. The fluid isolation valve according to claim 1, further including an end cap attached to at least one of said main section and said ball section.

15 9. The fluid isolation valve according to claim 8, wherein said main section is made of brass.

10. The fluid isolation valve according to claim 1, wherein said first fluid flow port  
20 is fitted with a union connection and said second fluid flow port is fitted with a threaded connection.

11. The fluid isolation valve according to claim 10 wherein said union connection further comprises a union connection insulator.

25 12. The fluid isolation valve according to claim 1, wherein said handle is wing-shaped.

13. The fluid isolation valve according to claim 4, wherein said drain port ball valve  
30 has a handle that is a single wing.

14. The fluid isolation valve according to claim 4, wherein an inner diameter of said chamber is substantially equal to an inner diameter of said end cap.

15. The fluid isolation valve according to claim 2 wherein said ball valve unit has a first valve seat, a second valve seat, a third valve seat and a fourth valve seat.

5        16. The fluid isolation valve according to claim 15 wherein said valve seats sealably position said ball within said ball valve unit.

17. The fluid isolation valve according to claim 15 wherein said valve seats are made of a polymeric material.